Connecticut General Assembly Joint Committee of the Judiciary
Testimony in Support of SB 280
Professor John J. Donohue III
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CAPITAL PUNISHMENT IN CONNECTICUT, 1973-2007:

A COMPREHENSIVE EVALUATION FROM 4686 MURDERS TO ONE EXECUTION

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I. EXECUTIVE SUMMARY

A. THE THREE MAIN COMPONENTS OF THE REPORT

This study explores and evaluates the application of the death penalty in Connecticut from 1973 until 2007, a period during which 4686 murders were committed in the state.[1] The objective is to assess whether the system operates lawfully and reasonably or is marred by arbitrariness, caprice, or discrimination. My empirical approach has three components. First, I provide background information on the overall numbers of murders, death sentences, and executions in Connecticut. The extreme infrequency with which the death penalty is administered in Connecticut raises a serious question as to whether the state's death penalty regime is serving *any* legitimate social purpose.

Specifically, of the 4686 murders committed during the sample period, 205 are death-eligible cases that resulted in a homicide conviction, and 138 of these were charged with a

[1] Table 1 in Section VII of the report notes that there were 4578 criminal, non-negligent homicides in Connecticut between 1973 and 2006, and "Crime in Connecticut 2007" lists an additional 108 such homicides for that year, bringing the total for the period from 1973-2007 to 4686. For ease of reference, the FBI Uniform Crime Reports refer to such crimes as "murders," and I follow that practice unless further refinement is needed.

capital felony. Of the 92 convicted of a capital felony, 29 then went to a death penalty sentencing hearing, resulting in 9 sustained death sentences, and one execution (in 2005). A comprehensive assessment of this process of winnowing reveals a troubling picture. Overall, the state's record of handling death-eligible cases represents a chaotic and unsound criminal justice policy that serves neither deterrence nor retribution.[2]

Second, mindful of the Supreme Court's mandate that "[c]apital punishment must be limited to those offenders who commit 'a narrow category of the most serious crimes' and whose extreme culpability makes them 'the most deserving of execution,'"[3] I evaluate whether the crimes that result in sustained death sentences are the most egregious relative to other death-eligible murders. Any claim to properly punishing such a narrow and specific category of the most serious offenses can definitively be put to rest. The Connecticut death penalty regime does not select from the class of death-eligible defendants those most deserving of execution. At best, the Connecticut system haphazardly singles out a handful for execution from a substantial array of horrible murders.

Third, I conduct a multiple regression to test more formally for the presence of arbitrariness or discrimination in implementing the death penalty. Specifically, I examine the impact on capital charging and sentencing decisions of legitimate factors that bear on the deathworthiness of 205 death-eligible cases, as well as legally suspect variables—such as race and gender of the defendant, race of victim, or judicial district in which the murder occurred.

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[2] The lack of any deterrence effect of the death penalty in Connecticut is widely acknowledged by knowledgeable researchers. Donohue and Wolfers, "Estimating the Impact of the Death Penalty on Murder," 11 American Law and Economics Review 249 (Fall 2009); . Donohue and Wolfers, "Uses and Abuses of Empirical Evidence in the Death Penalty Debate," 58 Stanford Law Review 791 (2005); Kovandzic, T. V., Vieraitis, L. M. and Boots, D. P. (2009), Does the death penalty save lives? Criminology & Public Policy, 8: 803–843.

Even the famously pro-death penalty (former) Waterbury State's Attorney John Connelly conceded that the death penalty in Connecticut is not a deterrent to murder. *The Death of Capital Punishment?* on *Morning Edition: Where We Live* (WNPR Connecticut radio broadcast, March 10, 2008).

[3] *Roper v. Simmons*, 543 U.S. 551, 568 (2005) (quoting *Atkins v. Virginia*, 536 U.S. 304, 319 (2002)).

The Connecticut death penalty system decidedly fails this inquiry; arbitrariness and discrimination are defining features of the state's capital punishment regime.[4]

B. THE SEVEN MAIN FINDINGS OF THE REPORT

This section briefly summarizes the seven specific findings I present in this report. First, Connecticut's death penalty regime today is assailable for producing results similar to the Georgia regime indicted by the Supreme Court's 1972 decision, *Furman v. Georgia*.[5] There the Supreme Court denounced an arbitrary and capricious capital punishment system that led to wantonly freakish and rare applications of the death penalty. As the U.S. Supreme Court highlighted in *Furman*, the sheer infrequency of death sentences and executions, given the number of murders, creates a strong suspicion that the determination of who is to die is highly arbitrary. The system could only be saved if it could be shown that those few death sentences and even fewer executions are reserved for the defendants who, because of the nature of their crimes, are most deserving of death.

Connecticut has executed one criminal defendant over a period during which there were 4686 murders. Efforts at sharpening the definition of death-eligible cases have not changed the Connecticut system's essential flaw: once the system has operated through the enormous discretionary decisions of prosecutors and juries, there is no meaningful basis for distinguishing

[4] This report supersedes the earlier version of my report and underscores how robust the initial findings have proven to be. Specifically, the core findings of arbitrariness and discrimination along racial and geographic lines have remained strong even as I have refined the sample of death-eligible cases, doubled the number of coders (from 9 to 18) used to assess the egregiousness of 205 cases (University of Connecticut coders have been added to supplement the initial group of Yale coders), and altered the specification of the regressions in various robustness checks. In addition, I have been able to respond to the various criticisms raised by the professional expert witness Stephan Michelson hired by the State in his seven reports reports (each roughly of 500 pages) and his various other memoranda and submissions. These reports are filled both with much irrelevant and hyperbolic commentary and criticisms that are often misleading, incorrect, or inconsequential. I highlight some of the most arresting errors in Michelson's reports, although largely ignore the uniformly inaccurate and unprofessional ad hominem attacks that populate his reports.

[5] 408 U.S. 238 (1972).

the very few who receive sentences of death from the many capital-eligible murderers who do not.

As Justice Brennan observed, "Evidence that a penalty is imposed only infrequently suggests not only that jurisdictions are reluctant to apply it but also that, when it is applied, its imposition is arbitrary and therefore unconstitutional. *Furman v. Georgia*, 408 U.S. 238, 92 S.Ct. 2726 (1972)."[6] 15 percent of death-eligible murder trial convictions resulted in a death sentence in pre-*Furman* Georgia, a level that was deemed to be freakishly rare and therefore arbitrary and unconstitutional in the *Furman* case itself.[7] But this study reveals that Connecticut imposes sustained death sentences at a rate of 4.4 percent (9 of 205) that is among the lowest in the nation and more than two-thirds lower than the 15 percent pre-*Furman* Georgia rate that gave rise to the finding of a freakishly rare imposition of a penalty.[8] This evidence provides a factual basis for the claim that the Connecticut death penalty regime is unconstitutional because it fails to comply with the Eighth Amendment's "narrowing" requirements recognized by the United States Supreme Court in *Furman*.

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[6] Justice Brennan, dissenting in *Tison v. Arizona*, 481 U.S. 137, 107 S.Ct. 1676 (1987).

[7] David C. Baldus, George G. Woodward & Charles A. Pulaski Jr., Equal Justice and the Death Penalty: A Legal and Empirical Analysis at 80 (1990): "In *Furman v. Georgia*, the infrequency with which juries actually imposed death sentences in death-eligible cases concerned each of the concurring justices. The *Furman* opinions suggest that the justices estimated that the national death-sentencing rate among convicted murderers was less than 0.20. Our pre-*Furman* data from Georgia indicated an unadjusted death-sentencing rate of 0.15 (44/294) in cases that resulted in murder convictions after trial, all of whose defendants were death eligible under Georgia law. This figure is quite consistent with the Court's estimate of the national rate."

[8] In an affidavit recently submitted in another case, David Baldus stated that "the post-Furman California death sentencing rate of 4.6% among all death-eligible cases is among the lowest in the nation and over two-thirds lower than the death sentencing rate in pre-Furman Georgia" (p.36). Connecticut's rate is smaller still than California's. The considerably higher rates of death sentencing that were still condemned in *Furman* and the low rates in California are identified in a recent empirical study of the California system conducted by George Woodworth, Michael Laurence, Robin Glenn, Richard Newell, and David Baldus that is based on a 1,900 case sample drawn from a universe of 27,453 California homicide convictions with offense dates between 1978 and 2002. Decl. of David C. Baldus on November 18th, 2010 (Exhibit 219), *Ashmus v. Wong* No. 3:93-cv-00594-TEH, U.S. District Court, ND Calif, page 4, and Table 5 on page 29.

Second, there is no meaningful difference between capital-eligible murders in which prosecutors pursue capital charges and those in which prosecutors do not. To assess whether the death penalty is being applied to the worst cases, I evaluated the egregiousness of 205 capital-eligible murders using two different egregiousness measures. I found that cases prosecutors charge as capital are virtually indistinguishable in these measures of deathworthiness from cases where prosecutors choose not to bring capital charges. This finding is difficult to square with the U.S. Supreme Court's Court's command that "[c]apital punishment must be limited to those offenders who commit 'a narrow category of the most serious crimes' and whose extreme culpability makes them 'the most deserving of execution.'"[9]

Third, this command that within the class of death-eligible murders, the death penalty must be limited to the worst of the worst is also violated by the highly arbitrary sentences that capital-eligible defendants receive. For any given sentence, I found wide variations in the degree of egregiousness of the murders that can lead to that sentence. Similarly, at every level of egregiousness, I observed a wide range of sentences. In other words, Connecticut has not limited its use of the death penalty to the "worst of the worst," since many equally egregious or more egregious cases result in non-death sentences. Eight of Connecticut's nine affirmed death sentences were *not* among the 15 most egregious cases. For some cases resulting in a death sentence, literally 60 to well over one hundred cases in the sample of 205 are more egregious yet did not get the death penalty (see Table 9 in Section VII below). For the 8 defendants in our sample that are currently on death row in Connecticut, the median number of equally or more egregious death-eligible cases receiving non-death sentences is forty-six under the Composite egregiousness measure and thirty-five under the Overall egregiousness score. While this is what

[9] *Roper v. Simmons*, 543 U.S. 551, 568 (2005) (quoting *Atkins*, 536 U.S. at 319).

one would expect from an arbitrary and capricious process,[10] it is not consistent with the idea of a fair and consistent criminal justice system that limits the death penalty to the worst of the worst within the class of death-eligible cases.

Fourth, while the data analyzed in this report comes from 205 death-eligible cases that end with a conviction, the focus on this limited sample *understates* the degree of arbitrariness in the system. If one widens the lens to focus on *all* death-eligible murders, the system is even less predictable than the above results indicate. Just prior to the adoption of the state's new death penalty statute in 1973, only 7 percent of murder cases were not cleared by arrest or extraordinary means. Since that time, there has been a steady erosion in the fraction of murders that are cleared. Today, roughly 40 percent of all Connecticut murderers go unsolved. If this current rate of clearances and death sentencing were to persist, then for every murderer who receives a sustained death sentence, at least fifteen death-eligible murderers would not be punished at all![11] Thus the wide sentencing disparities I describe above substantially understate the huge disparities in outcomes that are found within the larger class of death-eligible murders. Any retributive justification for the death penalty is severely compromised in a system that would execute nine while 137 comparable killers were able literally to get away with murder.

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[10] An enormous degree of unreviewable (or not effectively reviewable) discretion at many junctures in the criminal justice system—a hallmark of the Connecticut death penalty system—is the breeding ground for the operation of prejudice. *See* IAN AYRES, PERVASIVE PREJUDICE? UNCONVENTIONAL EVIDENCE OF RACE AND GENDER DISCRIMINATION (2001). Discriminatory patterns have been identified even in systems that take far greater care to avoid racially discriminatory decisions than are made in the operation of the Connecticut death penalty regime. *See, e.g.*, Joseph Price & Justin Wolfers, *Racial Discrimination Among NBA Referees* (Nat'l Bureau of Econ. Research, Working Paper No. 13206, 2007) (noting substantial evidence of racial discrimination among NBA referees despite the claim that they are among the mostly highly reviewed of employees in the world).

[11] If nine of 205 is the rate of death sentencing among capital-eligible murders, then we would expect a similar number of sustained death sentences in the next 205 death-eligible murders that make it into the criminal justice system. Yet at the current clearance rate of 60%, catching 205 murderers means that 342 death-eligible crimes would have been committed and 137 murderers would never be caught. 137 is more than fifteen times the nine we assume will be ultimately sentenced to death. Moreover, not all cases that are cleared lead to a conviction (recall the arrest of OJ Simpson cleared the double-murder he was charged with but did not lead to a conviction). The above numbers do not capture this other avenue in which death-eligible murderers go free.

Fifth, the Connecticut death penalty system results in disparate racial outcomes in the imposition of sustained death sentences that cannot be explained by the type of murder or the egregiousness and other aggravating factors of the crimes involved. Looking at the raw statistics (in Table 20 of Section IX, which is also reproduced in this Executive Summary), one sees that minority defendants who commit capital-eligible murders of white victims are six times as likely to receive a death sentence as minority defendants who commit capital-eligible murders of minority victims (12 percent versus 2 percent).[12] Minority defendants who murder white victims are three times as likely to receive a death sentence as white defendants who murder white victims (12 percent versus 4 percent).

If we control for the factors of the crime through regression analysis, these disparities become even larger outside the Waterbury judicial district, as shown in Tables 24-26 of Section IX. For example, for the most common type of capital felony -- multiple victims cases, which comprise 38 percent of the 205 death-eligible cases -- a minority killing a white victim outside Waterbury is 11 to 13 times as likely to be sentenced to death as a minority killing a minority or a white killing a white. Of course, it is a clear violation of Equal Protection when "members of [one] race [are] being singled out for more severe punishment than others charged with the same offense." Gregg v. Georgia, 408 U.S. at 449 (Powell, J. dissenting).

Sixth, the regression analysis of capital felony charging decisions provides further evidence of the arbitrariness and racial bias in Connecticut's capital punishment regime. Specifically, controlling for the type of murder as well as the egregiousness and the number of special aggravating factors in a case, minority killers of whites are treated most harshly, experiencing a charging rate that is roughly 20-22 percentage points higher than those who kill minority victims (see Table 22).

[12] "Minority" refers to Hispanics and non-whites. "White" therefore refers to non-Hispanic whites.

These findings for the Connecticut death penalty system parallel those of recent studies of the application of the death penalty in other states: defendants who murder white victims are more likely to receive death sentences and are more likely to be executed subsequent to a death sentence than are defendants who murder non-white victims, particularly if the defendants are members of a racial or ethnic minority.[13]

Seventh, regression analysis also confirms that there are dramatically different standards of death sentencing across Connecticut. Capital-eligible defendants in Waterbury are sentenced to death at enormously higher rates than are capital-eligible defendants elsewhere in the state (see Tables 22 and 24-26). The arbitrariness of geography in determining criminal justice outcomes is a dominant factor in the Connecticut death penalty regime, despite the fact that, as a small state with no judicial election of judges or prosecutors, there is no articulated rationale for tolerating such immense geographic variation in capital sentencing. Moreover, race of both defendant and victim is strongly and statistically significantly related to whether or not the state pursues and obtains a death sentence – an indication that the death penalty system in Connecticut is not only arbitrary but is also impermissibly discriminatory.

An essential message from the regression analysis across an array of murder categories is that the likelihood that a death-eligible murder will result in a death sentence is at least an order of magnitude higher for minority on white murders (Tables 24-26). Minority on white murders will also have an order of magnitude higher probability of receiving the death sentence in Waterbury versus elsewhere in the state, and all other murders will have roughly two

[13] *See, e.g.*, David C. Baldus & George Woodworth, *Race Discrimination and the Legitimacy of Capital Punishment: Reflections on the Interaction of Fact and Perception*, 53 DePaul L. Rev. 1411, 1425 (2004) (reviewing race of victim data within states and concluding that "[t]hese data strongly suggest that defendants with white victims are at a significantly higher risk of being sentenced to death and executed than are defendants whose victims are black, Asian, or Hispanic"); David C. Baldus & George Woodworth, *Race Discrimination in the Administration of the Death Penalty: An Overview of the Empirical Evidence with Special Emphasis on the Post-1990 Research*, 41 No. 2 CRIM. L. BULL. 6 (2005) ("on the issue of race-of-victim discrimination, there is a consistent pattern of white-victim disparities across the systems for which we have data").

orders of magnitude higher rates of death sentencing in Waterbury versus elsewhere. These are prodigious race and geographic effects on who is sentenced to die in Connecticut.

Table 20: Capital Charging and Death Sentencing Rates in Connecticut for 205 Death-Eligible Cases by Race of Defendant/Victim

	1. Total - 205	2. Minority/White – 34	3. Minority/ Minority - 92	4. White/White - 74	5. White/ Minority - 5
Means for 4-12 and 1-5 Egregiousness & Special Aggr. Fac	(8.4, 3.6, 3.7)	(8.2, 3.6, 3.9)	(8.2, 3.4, 3.5)	(8.6, 3.8, **4.0**)	(**9.0, 3.8**, 2.8)
1. Rate of Capital Felony Charging (% and ratio)	67.3 (=138/205)	**79.4 (=27/34)**	60.9 (=56/92)	70.3 (=52/74)	60.0 (=3/5)
	(8.4, 3.6, 4.0) (8.3, 3.5, 3.3)	(8.2, 3.6, 4.1) (8.3, 3.7, 3.3)	(8.2, 3.4, 3.7) (8.2, 3.4, 3.1)	(**8.7, 3.9, 4.3**) (8.3, 3.6, 3.4)	(8.7, 3.8, 1.3) (**9.4, 3.9, 5.0**)
a. Male Defendants	68.1 (=130/191)	**78.8 (=26/33)**	59.8 (=52/87)	73.1 (=49/67)	75.0 (=3/4)
	(8.4, 3.6, 4.0) (8.2, 3.5, 3.4)	(8.2, 3.6, 4.1) (**8.3** 3.7, 3.3)	(8.1, 3.3, 3.9) (8.2, 3.4, 3.2)	(**8.8, 3.9, 4.3**) (8.3, 3.6, 3.6)	(8.7, 3.8, 1.3) (8.0, **3.8 6.0**)
b. Female Defendants	57.1 (=8/14)	**100 (=1/1)**	80.0 (=4/5)	42.9 (=3/7)	0 (=0/1)
	(8.3, 3.8, 2.8) (8.8, 3.7, 2.2)	(7.1, 3.5, **4.0**) (no cases)	(**9.0, 4.0**, 1.8) (8.6, 3.8, 0)	(7.9, 3.5, 3.7) (8.4, 3.5, 2.3)	(no cases) (**10.7, 4.1, 4.0**)
c. Waterbury	75.0 (=9/12)	**100 (=2/2)**	60.0 (=3/5)	75.0 (=3/4)	100 (=1/1)
	(8.9, 4.0, 3.2) (10.3, 4.3, 2.7)	(8.4, **4.3**, 4.0) (no cases)	(8.5, 3.8, 2.0) (**11.0, 4.4, 3.5**)	(9.2, 4.0, **4.3**) (9, 3.9, 1)	(**9.7**, 4.2, 2.0) (no cases)
d. Non-Waterbury	66.8 (=129/193)	**78.1 (=25/32)**	60.9 (=53/87)	70.0 (=49/70)	50.0 (=2/4)
	(8.4, 3.6, 4.0) (8.2, 3.5, 3.3)	(8.1, 3.6, 4.1) (8.3, 3.7, 3.3)	(8.2, 3.4, 3.8) (8.0, 3.4, 3.1)	(**8.7, 3.9, 4.3**) (8.3, 3.6, 3.5)	(8.2, 3.5, 1.0) (**9.4, 3.9, 5.0**)
2. Rate of Death Sentencing (Sustained) (% and ratio)	4.4 (=9/205)	**11.8 (=4/34)**	2.2 (=2/92)	4.1 (=3/74)	0 (=0/5)
	(9.0, 4.2, 4.9) (8.3, 3.6, 3.7)	(8.2, 4.1, 3.8) (8.2, 3.6, **4.0**)	(9.1, 4.2, 5.0) (8.2, 3.4, 3.5)	(**10.1, 4.3, 6.3**) (8.5, 3.8, 3.9)	(no cases) (**9.0, 3.8**, 2.8)
a. Male Defendants	4.7 (=9/191)	**12.1 (=4/33)**	2.3 (=2/87)	4.5 (=3/67)	0 (=0/4)
	(9.0, 4.2, 4.9) (8.3, 3.5, 3.8)	(8.2, 4.1, 3.8) (8.2, 3.6, 4.0)	(9.1, 4.2, 5.0) (8.1, 3.4, 3.6)	(**10.1, 4.3, 6.3**) (**8.6, 3.8, 4.0**)	(no cases) (8.5, 3.8, 2.5)
b. Female Defendants	0 (=0/14)	**0 (=0/1)**	0 (=0/5)	0 (=0/7)	**0 (=0/1)**
	(no cases) (8.6, 3.7, 2.5)	(no cases) (7.0, 3.5, **4.0**)	(no cases) (8.9, 4.0, 1.4)	(no cases) (8.2, 3.5, 2.9)	(no cases) (**10.7, 4.1, 4.0**)
c. Waterbury	33.3 (=4/12)	**100 (=2/2)**	0 (=0/5)	50.0 (=2/4)	0 (=0/1)
	(9.0, 4.2, 5.0) (9.3, 4.0, 2.1)	(8.4, **4.3**, 4.0) (no cases)	(no cases) (9.5, 4.0, **2.6**)	(**9.5**, 4.1, **6.0**) (8.8, 3.9, 1)	(no cases) (**9.7, 4.2**, 2.0)
d. Non-Waterbury	2.6 (=5/193)	**6.3(=2/32)**	2.3(=2/87)	1.4 (=1/70)	0 (=0/4)
	(9.1, 4.2, 4.8) (8.3, 3.5, 3.8)	(8.0, 3.9, 3.5) (8.2, 3.6, 4.0)	(9.1, 4.2, 5.0) (8.1, 3.3, 3.5)	(**11.2, 4.8, 7.0**) (8.5, **3.7, 4.0**)	(no cases) (**8.8**, 3.7, 3.0)
Column Totals for Most "Egregious/Aggravated"	0	6	6	27	22

The darkened boxes identify the highest rate of charging or sentencing for any given row. In every case, the harshest treatment is accorded to the minority on white murders. The shaded individual numbers show the highest levels in each row for my two measures of egregiousness and for special aggravating factors. Note that minority defendant cases tend not to be the most egregious or aggravated (as seen in the last row of the table).

These regression findings—that race and geography are powerful determinants of capital sentencing decisions in Connecticut—are extremely robust to changes in the sample and in specifying the regression models. Within the class of capital-eligible crimes, these impermissible factors are far more consistent and stronger predictors of capital-charging and sentencing outcomes than are legitimate factors—such as the egregiousness of the crime or the presence of special aggravating factors, which of necessity means that Connecticut's death penalty regime fails to single out "the worst of the worst" for execution.

The findings documenting the harsher treatment that the Connecticut death penalty system inflicts on cases with minority defendants and white victims, and the vastly higher pattern of death sentencing in Waterbury virtually leapt out of the raw aggregated data, as highlighted visually in Table 20. The more sophisticated regression results overwhelmingly confirm what we saw in the simple tables and figures: race and geography substantially influence capital outcomes in Connecticut. These results emerge from regression models that control for the types of murders involved, the number of victims, the egregiousness of the crime (measured in two primary distinct ways based on the evaluation of 18 coders, as well as with many variations in specification and disaggregation into component elements), various aggravating factors that might attend the crime, the gender of the defendant, whether the crime is a stranger murder, the record of prior prison sentences of the defendant, or whether we drop out cases that Michelson argues should be omitted. These findings are statistically significant and robust.

Moreover, the arbitrariness and caprice of who is punished for capital-eligible murders is even more drastic than the data on those who are convicted show because a large and growing proportion of the murders in Connecticut remain unsolved. A system designed to promote deterrence and retribution would not waste enormous amounts of resources seeking

capital punishment -- given the widely accepted lack of deterrence conferred by the Connecticut death penalty -- when those resources could be used to help catch the growing number of Connecticut murderers that go scot free.

C. FIVE CONCLUSIONS FROM THE STATE'S EXPERT

One might assume from the prodigious length and strident tone of the (seven!) highly reports submitted on behalf of the state by Dr. Stephan Michelson that the state's expert disagrees with my conclusions on the most central findings of my report. In fact, if one can get past the rhetoric and unfounded speculations of the Michelson report, five main conclusions can be distilled from Michelson's analysis and his deposition testimony about the capital charging and sentencing process in Connecticut:

1. There are enormous and unexplained geographic disparities.
2. Death sentences are not confined to the worst murders.
3. There is gender bias in death sentencing.
4. There is racial bias in capital outcomes.
5. There is arbitrariness in the key charging and sentencing decisions of the Connecticut death penalty system.

Michelson's deposition testimony substantially corroborates the substance of all five of these indictments of the Connecticut death penalty system. First, on the issue of geographic disparities, Michelson concedes, as he must, that "there are certain crimes that will be prosecuted to the death penalty in Waterbury that won't be in New Haven."[14] Indeed, the evidence is unmistakable and irrefutable that capital sentencing is not uniform across Connecticut, but rather far more prone to death sentencing in Waterbury than in the rest of the state, even though there is no principled basis for the harsher treatment of cases in Waterbury.

[14] Michelson Dep. Sep. 17 2010 960:4 – 960:6.

Michelson recognized this geographic dependence at several points in his depositions and in his latest October 15, 2010 report.[15] For example, he conceded, as the evidence clearly mandated, that there is a statistically significant disparity in the administration of the death penalty based on geography:

> Q ...you would agree that there is a statistically significant disparity in the State of Connecticut's administration of the death penalty based on geography, correct? That's what you said yesterday, correct?
> A Yes, based on the geography that has been defined by judicial districts.[16]

He further acknowledged some of the factors that generated these large geographic disparities:

> Q But you do know that different state's attorneys in the state follow different courses with respect to charging decisions in capital cases because you refer to that in your report, do you not?
> A Well, yes, I believe that to be true.
> Q And you know, for example, because you refer to it in your report, that Prosecutor Connelly in Waterbury prosecutes more aggressively than other prosecutors in the state, correct?
> A Correct.[17]

And just to be clear that Michelson acknowledges that there is "no question" that capital cases will be treated differently across the state's judicial district, consider this exchange:

> Q. And isn't it true that based on your compilation of the data, as the state's retained expert, you have concluded that offenders, similar offenders committing similar capital offenses in different parts of the state are prosecuted differently and receive the death penalty differently for the same offense?
> A. ... I say they get the death penalty differently. ...
> There is no question that Waterbury is different from New Haven.
> Q. And New Britain. Waterbury is different than New Britain?
> A. Yes, that's right, New Britain would be similar to New Haven.
> Q. So you concluded, as the state's expert, that in the state of Connecticut, the death penalty is administered differently to similar offenders committing similar offenses depending upon where in the state the crime occurs?
> A. I did....

Indeed, in Michelson's regression designed to explain who gets the death sentence, he concludes that being in Waterbury is the most potent predictor -- more powerful than any of my egregiousness measures or even Michelson's own egregiousness measure (**awful**). He writes:

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[15] Michelson Dep. Sep. 17 2010 937:8 – 937:20; Michelson Dep. Sep. 17 2010 956:5 – 956:14; Michelson Dep. Sep. 17 2010 956:20 – 957:3; Michelson Dep. Sep. 17 2010 958:10 – 958:21; Michelson Report, October 15, 2010 at 309 (Michelson describes his regression findings as follows: "That trial in Waterbury leads to the death sentence more than in other districts is no surprise.")
[16] Michelson Dep. Sep. 17 2010 958:10 – 958:21.
[17] Michelson Dep. Sep. 17 2010 956:5 – 956:14.

> The single best explainer (accounting for 40 percent of the variation explained in Figure B23), is that the sentencing occurs in Waterbury. It is undeniable that the prosecutor in Waterbury is more willing to pursue the death penalty at a sentencing hearing, when it is available, than prosecutors in other jurisdictions. Whether there are constitutional implications for the finding is not my concern.[18]

Second, Michelson acknowledges that capital punishment is not reserved for the worst possible criminals. When asked how one Waterbury's District Attorney decides to pursue a capital sentence, Michelson responded: "he says that if it's death eligible, he will ask for the death penalty."[19] Since crimes committed in Waterbury are treated more harshly than *identical* crimes committed elsewhere in the state, as Michelson acknowledged, this necessarily implies that the Connecticut death penalty regimes does not limit the death penalty to the worst possible offenders. Needless to say, nothing about a murder in Waterbury makes it more egregious than a similar crime committed elsewhere in Connecticut.

Indeed, Michelson attempted to test whether capital punishment in Connecticut is limited to the worst of the worst crimes and he found that it was not. In particular, the **awful** variable that he coded to indicate his intuitive ratings of the awfulness of a crime did not relate to whether a crime was charged as a capital offense, as he explains in his deposition:

> Q. To the extent that you tested whether the worst of the worst crimes are charged with the death penalty, you found that there was no statistical correlation that was significant between the awfulness of the crime and the charging decision, correct?
>
> A. I could only say the awfulness of the crime as I see it.
>
> Q. Yes.
>
> A. Then I agree. I developed that measure, and it didn't relate very strongly, strong enough to be in the equation, but not strong enough to convince you.
>
> Q. So you developed a measure of egregiousness, and you found that the measure of egregiousness that you developed and put into your study did not have a statistically significant relationship to the charging decision, as that phrase is used by the majority of econometricians and courts in this country?

[18] Michelson Report, Part B, p. 146 (August 20, 2010).
[19] Michelson Dep. Sep. 17 2010 956:23 – 956:24.

A. Right.[20]

Third, Michelson was emphatic about the impact of sex on the administration of the death penalty, saying it's "certainly true" that gender impacts who gets sentenced to death in Connecticut:

> Q. So that the death penalty in Connecticut is, both in terms of charging and in terms of actually having it imposed, there's a stat -- if you were applying the majority test, there's a statistically significant impact of gender on who gets the death penalty in Connecticut, correct?
>
> A. Well, I don't remember if that's true about charging, but after charging it's certainly true.[21]

And Michelson even indicated that he thought females were virtually immune from the death penalty on the basis of past cases.

> Q. And it's also correct in terms of your evaluation as an expert econometrician, your evaluation of the death penalty in Connecticut is that there is a bias based on gender in who gets the death penalty, correct?
>
> A. I don't think I use the word bias, but I don't know that that's inapplicable. Females do not get the death penalty.[22]

Fourth, although Michelson stumbled badly on the issue of the impact of race on capital outcomes in Connecticut, he conceded several times that his own regressions generated statistically significant findings that race influences outcomes under the Connecticut death penalty.[23] For example in Figure B17 on page 121 of his August 2010 report, Michelson presented a regression analysis of the factors that influence Connecticut capital felony murder charging decisions. The table included a number of variables, including one to measure whether

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[20] Michelson Dep. Sep. 16 2010 804:9 - 805:1. The truth is a bit worse than Michelson reports in his deposition. In fact, his measure of the worst cases, which he claims on page 309 of the August 20, 2010 report to have built on even more complete details of the facts of the crimes than was available in my data set was not only *not* statistically significant, but it was also too weak to be included in his equation (under Michelson's inclusion standards), as he clearly states in his report: "My assessment of the awfulness of the crime was not informative enough to be included as an explainer of the capital charge." Michelson Report, Part B, p. 123 (August 20, 2010). Nor was it included in Michelson's assessment of who gets the death penalty versus life sentences: "my variable **awful** is not related to the death sentence, in this analysis, even enough to be displayed." Id. at 148.

[21] Michelson Dep. Sep. 16 2010 716:21 - 717:3

[22] Michelson Dep. Sep. 16 2010 717:13 - 717:20.

[23] Michelson Dep. Sep. 16 2010 687:13 - 687:25; Michelson Dep. Sep. 16 2010 692:25 - 693:7; Michelson Dep. Sep. 16 2010 700:12 – 700:18; Michelson Dep. Sep. 17 2010 927:17 – 927:23; Michelson Dep. Sep. 17 2010 935:4 – 935:10; Michelson Dep. Sep. 17 2010 973:5 – 973:10.

the murder victim was white (regardless of the race of the defendant). Michelson's regression shows that there is a statistically significant *higher* capital charging rate at the .05 level when the victim is white:

> Q. Okay. Now, in your August 20th, 2010, the right-hand side, is the victim being white a significant – is the victim being white significant for the capital charging decision?
>
> A. I think most people would say yes, even though the T statistic is 1.97.[24]

As I did, Michelson also tested in his Figure B17 whether a black defendant who killed a white victim would be charged more harshly. As Michelson admitted at his deposition, this variable was highly significant in his own regression, with a notably high t-statistic of 3.07:

> Q. Well, what does this table with the 3.07 [t-statistic] show about whether a black defendant and a white victim has an effect on the capital charging decision in Connecticut?
>
> A. Well, I believe it shows very little.
>
> Q. You do?
>
> A. Yes.
>
> Q. If you were one of the experts in the field who used the phrase statistically significant, what would someone say about the 3.07?
>
> A. They would say it's significant at whatever level you want, practically.[25]

Describing the findings of this capital charging equation, Michelson notes in his report that "petitioner's [sic] will be pleased with these results ... [since] it does appear that black defendants with white victims are charged with capital felonies more easily than anyone else."[26]

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[24] Michelson Dep. Sep. 16 2010 705:7 – 705:12. Michelson's answer is somewhat confused. *Everyone* would say that this evidence is statistically significant *because* the t-statistic is 1.97, which exceeds the threshold level of 1.96 defining statistical significance at the .05 level.

Michelson acknowledged the race of victim impact on capital charging even more explicitly later in the same deposition with respect to a prior version of Figure B17 on page 111 of his September 2009 report. He indicated that this table was the same, except that the regressions had been run with two data points that he deleted in his August 2010 report (Michelson Dep. Sep. 16 2010 702:11 – 702:25):

Q. And whether you use the phrase statistically significant or not, you agree that the data in B-17 in September 1, 2009, that you generated, from the database as you were given, shows that the race of the victim has an impact that is significant on the capital charging decision in Connecticut, correct?

A. Correct. (Michelson Dep. Sep. 16 2010 700:12 – 700:18.)

[25] Michelson Dep. Sep. 16 2010 687:13 - 687:25.

[26] Michelson August 20, 2010 Report at 124.

While I certainly don't speak for petitioners, I, for one, was not particularly pleased to learn of the racial bias in capital charging in Connecticut, but that is what both my report and Michelson's regression results clearly establish.

Astonishingly, Michelson tries to explain away his (and my) finding by arguing that minority on white murders are treated worst because (apart from race) they are more egregious according to my egregiousness measures.[27] Michelson commits two gross errors in making this last claim. First, the evidence shows that minority on white murders are clearly *not* more egregious (see Table 20), so he gets his factual predicate wrong.[28] Table 20, above, clearly shows that on average white on white murders are more egregious under all three measures than black on white cases. Second, even if these murders were on average more egregious (though they are not), it would not matter since his (and my) regressions *control* for these egregiousness measures and yet we both still find that black on white crimes are treated more harshly. This is exactly what regression is for: to see whether the harsher treatment of minority defendants who murder whites exists *even controlling for the egregiousness of the crimes.* Michelson's own regression confirms that these defendants are treated most harshly, and his effort to refute his own regression is nonsensical. Indeed, as noted above, Michelson's regression controls for

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[27] Michelson Report, August 20, 2010, app. at B 44.

[28] How did Michelson wrongly come to the conclusion that minority on white murders are more egregious? This is yet another gross error on his part, as I describe in detail in Section X.F of this report. Essentially, Michelson takes my two egregiousness measures and regresses my Overall measure on my Composite measure, while including a control for minority on white murders, which he finds to be statistically significant. He thinks this means minority on white murders are more egregious, which it certainly does not. One can see this by flipping the regressions (to regress the Composite measure on the Overall measure) in which case minority on white murders would come out as *less* egregious.

Michelson's error can be revealed by the following analogy: assume you had two sets of estimates (A and B) of the heights of individuals and you put in a control for Pygmies when you regressed the values of estimate A on the value of estimate B. If the Pygmie coefficient is positive, it means that height estimate A tends to be higher than height estimate B for Pygmies (and hence that height estimate B is lower than height estimate A for Pygmies). It does *not* mean that Pygmies are taller than everyone else, which is the analogous erroneous conclusion to the one that Michelson draws in assessing my two estimates of egregiousness.

egregiousness not only using my measures but his own measure as well (his **awful** variable). Nonetheless, the race effect does not go away.

The bottom line, then, is that if Michelson had done his analysis correctly, he would presumably have fully accepted the conclusion that minority on white murders are treated more harshly in the Connecticut death penalty system, and that there is no legitimate explanation for this treatment since the race effect remains strong even with a set of controls for the egregiousness of each case.

In fact, Michelson did articulate one mechanism by which black defendants would end up with harsher treatment in capital cases, noting that "among those charged with a capital felony, blacks are particularly unlikely to plead guilty—other than by Alford—even to a reduced charge."[29] Of course, since prosecutors govern the reduction of charges pursuant to a plea, the fact that black defendants would be "particularly unlikely" to secure these reduced charges is highly problematic in light of the findings that minority murders are *not* more egregious or deathworthy than murders committed by whites. Michelson, however, tries to blame the lower rate of pleas observed among this class of defendants on their own poor choices, claiming that "The defendant [in a capital case] can plead to whatever he wants, whenever he wants."[30] Any knowledgeable observer of the criminal justice system knows that claim to be entirely false.

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[29] Michelson, August, 20, 2010 report. at 164.

[30] This sentence appears on page 165 of Michelson's July 1, 2009 report and then again on page 150 of his September 1, 2009 report. When David Golub asked Michelson about this statement at Michelson's August 27, 2009 deposition, the following exchange occurred (at the bottom of pg 0390, beginning at line 119):

Q It's a nonsense statement; isn't it, sir?

A No.

But Michelson clearly realized it was nonsense and later changed the statement. By Michelson's November 30, 2009 version, this language became (page 177): "The defendant can initiate a plea to whatever he wants, essentially whenever he wants. The court may not be interested in a plea to anything but this current charge, but the defendant and prosecutor surely discuss such matters, which is why the DCI asks about such discussions." This is still nonsense.

Fifth, Michelson's (both explicit and inadvertent) concessions that the Connecticut death penalty system is marred by race, sex, and geographic disparities that cannot be explained by the nature of the crimes, and that the system does not limit its harshness to the worst of the worst offenders effectively establish that the system operates in a substantially arbitrary fashion.

Moreover, Michelson acknowledged multiple times that – according to his own findings - the number of victims did not correlate in a sensible way with capital punishment.[31]

> Q: You found that the more people that are killed, the lower the probability of the death sentence in Connecticut?
>
> A: As a characteristic of Connecticut's history, that is true.
>
> Q: That's bizarre, isn't it, sir?
>
> A: Absolutely.[32]

Indeed, Michelson's deposition testimony provides a rather concise description of some of the most obvious constitutional infirmities with the Connecticut death penalty system:

> Q: So what we now know about Connecticut that we agree on is that there's statistically significant disparity by gender, there's a statistically significant disparity by geography, there is an inverse relationship that is surprising between the number of victims and the likelihood of the death penalty in that it's less the more people you kill, and that there is data that shows in [your report] there is a statistically significant disparity ... based upon the defendant being black, the victim being white, and who gets charged with the death penalty, those are all –
>
> A: No, who gets charged with a capital felony.
>
> Q: Okay. You agree with everything I've just said, correct?
>
> A: Yes.[33]

This is the testimony of the *state's* expert witness: the Connecticut death penalty system is marred by statistically significant racial, gender, and geographic disparities, and renders arbitrary decisions that do not limit the application of the death penalty to the worst of the worst offenders. Such a capital punishment regime that selects a small handful of cases from a vast number of

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[31] Michelson Dep. Sep. 16 2010 865:8 – 865:22; Michelson Dep. Sep. 16 2010 867:1 - 867:16; Michelson Dep. Sep. 16 2010 866:20 – 866:25.
[32] Michelson Dep. Sep. 16 2010 865:10 – 865:16.
[33] Michelson Dep. Sep. 16 2010 867:1 - 867:16.

murders in such a capricious way cannot advance any legitimate goal of deterrence or retribution. As the Supreme Court stated in *Atkins v. Virginia*, 536 U.S. 304, 318-19 (2002):

> Unless the imposition of the death penalty "measurably contributes to one or both of these goals, it 'is nothing more than the purposeless and needless imposition of pain and suffering,' and hence an unconstitutional punishment."

D. THE PROBLEMATIC STREAM OF MICHELSON'S ERROR-FILLED REPORTS

Somewhat paradoxically, the State of Connecticut hired as an expert in this litigation someone with no experience in any matter relating to the criminal justice system in general or the death penalty in particular. Michelson's lack of knowledge in this realm was evidenced by his inability to understand the difference between homicide and murder; his insistence—even after being coached by the prosecutors over multiple breaks and bringing his own hand-written notes into the deposition to aid him in correcting his early mis-statements—that murder was the broader of the two categories; his failure to understand that murder was a crime in the state of Connecticut, and his afore-mentioned claim that "The defendant can plead to whatever he wants, whenever he wants."

Michelson's ignorance of the substance of this litigation is compounded by his eccentric and wrong-headed attitudes on an array of fundamental issues of econometrics (which he also noted was a subject about which he was not an expert). He starts off his report endlessly assailing aspects of the creation of my final data set in a way that might lead the reader into believing that I presented some erroneous data because I could not line up data fields or owing to some other perceived shortcoming. This is completely untrue. In contrast with Michelson, who produced report after report of error-filled tables—every regression I ran did exactly what I said it did, as he himself conceded during his deposition:

> Q: Okay. Now, you had an opportunity because you were given Professor Donohue's tables and figures, you were given his DO files, you were given his equations. Did any of

the figures and tables in his report, were any of those not supported by the equations? Do you understand my question, sir?

A: I do. His tables – I replicated them. I said so in B.

Q: So every table and figure in Professor Donohue's report was supported by the underlying DO file and equation, correct?

A: Correct.[34]

Yet, on the third day of a scheduled four-day deposition, Michelson admitted that **he** messed up all of his data, rendering all of his tables worthless:

Q. So it's useless right now to try to question you on the accuracy of the data in your tables; isn't that right?
A. That's your decision.
Q. Well, we can question you about whether you performed -- you did what you said you did, but you are not standing behind any of the data in your tables right now; are you?
A. That's correct.[35]

Q. You agree that the data in your tables, all of your tables, the data is invalid; correct?
A. Is invalid? No.
Q. Yes. Incorrect? How about that, incorrect?
A. I would take, there are data elements that are incorrect and they need to be corrected.
Q. And you have no idea what element in the table is correct and what element in the table is incorrect; correct?
A. Well, that's because these tables are not data.[36]

...
Q. ...You have no idea as you sit here today whether any of the conclusions you drew from information in your tables will still be the same conclusion after you fix the tables?
A. That's correct.[37]

Q. Okay, I'll rephrase the question.
A. Every one of these numbers will change.
Q. ...You have no idea as you sit here today whether any of the conclusions you drew from information in your tables will still be the same conclusion after you fix the tables?
A. That's correct.[38]

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[34] Michelson Dep., Sep. 17 2010 901:5 - 901:16.
[35] Michelson, Stephan - Deposition transcript. Vol. III 9-30-09 P. 531: 2 - 10.
[36] Michelson, Stephan - Deposition transcript. Vol. III 9-30-09 P. 531: 11-21.
[37] Michelson, Stephan - Deposition transcript. Vol. III 9-30-09 P. 532: 1-5.
[38] Michelson, Stephan - Deposition transcript. Vol. III 9-30-09 P. 531: 22 – P. 532: 5.

Those statements were made back in September of 2009, and two years later, the endless stream of erroneous tables keeps pouring forth. He has already turned over *seven* different reports trying to correct past errors with the last appearing in August of 2010. Since then he has issued revisions in October and November of 2010, and he is still churning out tables that completely contradict the relevant tables he presented in his earlier reports. Apparently, Michelson would now like to clean up the latest mess by submitting report eight, which he claims to be working on.

Michelson follows up his inaccurate and misleading attack on my data set, with a misguided denunciation of my report for using an entirely appropriate measurement scale to capture the egregiousness of death penalty cases in my regression analysis. While any aspect of a regression analysis is fair game for investigation, the hyperbolic charges of my alleged "incompetence" coupled with Michelson's complete ignorance of the published literature on this issue are troubling. I show in this report that my egregiousness measures are the type of measurement scales that are frequently and profitably used throughout the social sciences and medicine, using examples from work by Nobel economist Daniel Kahneman, top psychologist Robyn Dawes, and eminent statistician and long-time and first Chair of the Harvard Statistics Department Fred Mosteller, as well as numerous other authors including those cited by Michelson approvingly ("one of the most impressive academic books I have ever read") and even by those who Michelson sought to cite *against* me.

The Court will have to decide whether to believe Michelson who says that I have made the type of error that is not worthy of a high school student or to believe the collected product of some of the most eminent and highly regarded academics working over the last fifty years. I should add that Michelson's very position on measurement scales was mocked by the towering

statistician John Tukey who termed it a "dangerous view" and added that "if generally adopted it would not only lead to inefficient analysis of data, but it would also lead to failure to give any answer at all to questions whose answers are perfectly good, though slightly approximate. All this loss for essentially no gain."[39]

At the same time, Michelson embarks on a string of serious statistical errors, including his complete violation of standard econometric protocol by engaging in the type of flawed data mining exercise that the eminent MIT econometrician Frank Fisher appropriately called "a recipe for spurious results," his common practice of running nonsensical or flawed regressions or wildly misinterpreting the regressions he does run, his flagrant violation of standard statistical protocols while assailing me for my unwillingness to engage in similar violations, all coupled with his admitted and demonstrated ignorance of the peer-reviewed literature on the very issues about which he so vociferously and wrongly expounds, and his lack of knowledge of modern empirical research or best empirical methodology.

While Michelson purports to show in his Figure D03 that race does not influence capital charging, my Table 53 in Section X.H.1 reveals a highly significant higher charging rate for black on white murders, mimicking Michelson's list of explanatory variables and using his exact sample of 214 death-eligible cases. Table 53 simply re-defines the racial categories in Michelson's regressions to reflect what his own Table suggests it is doing (but doesn't do).

Similarly, while Michelson purports to show in his Figure D12 that race does not influence capital sentencing, my Table 56 in Section X.H.2 reveals a highly significant higher capital sentencing rate for minority on white murders, again mimicking Michelson's list of explanatory variables and using his exact sample of 126 death-eligible cases. The only

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[39] JOHN W. TUKEY, *Data Analysis and Behavioral Science or Learning to Bear the Quantitative Man's Burden by Shunning Badmandments, in* 3 THE COLLECTED WORKS OF JOHN W. TUKEY 187, 243 (Lyle V. Jones ed., 1986).

difference between Michelson's Figure D12 and my Table 56 is that I again (as in Table 53) use more illuminating racial categories, I correct Michelson's errors in incorrectly indicating who received a death sentence, and I use the more appropriate logit estimation approach (rather than Michelson's sub-optimal OLS estimation).

These minor improvements to Michelson's capital charging and sentencing equations show that race does indeed infect capital outcomes in Connecticut in exactly the way that my report has emphasized. Moreover, none of Michelson's criticisms about my egregiousness measures, my lack of controls for guilty pleas or other factors, or problems with the data has any bearing on these findings in my Tables 53 and 56 for a simple reason. Those tables use Michelson's exact sample, use Michelson's list of explanatory variables except for the corrected racial identifiers, and use Michelson's measure of egregiousness. Michelson has essentially conceded every major finding from my report, except racial bias. Correcting his own regression models confirms the existence of this racial bias in both capital charging and sentencing.